Message

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]

Sent: 3/29/2017 7:07:10 PM

To: Olechiw, Michael [olechiw.michael@epa.gov]

CC: Moran, Robin [moran.robin@epa.gov]; Bolon, Kevin [Bolon.Kevin@epa.gov]

Subject: FW: SAE High Efficiency Internal Combustion Engine Symposium - Sunday, April 2 in Detroit

Mike

I think it is more likely than not that I will need to ask you to cover this conference on Sunday. We can talk about it on either late today (4-5pm) or on Thursday.

Are you still able to do this?

Thanks Bill

From: Charmley, William

Sent: Wednesday, March 22, 2017 1:01 PM

To: Barba, Daniel

 barba.daniel@epa.gov>; Olechiw, Michael <olechiw.michael@epa.gov>

Cc: Moran, Robin <moran.robin@epa.gov>; Bolon, Kevin <Bolon.Kevin@epa.gov>

Subject: FW: SAE High Efficiency Internal Combustion Engine Symposium - Sunday, April 2 in Detroit

Mike and Dan -

It is possible I could have a very challenging time actually giving the key note at this SAE Symposium on Sunday, April 2 (which is about 10 days from now).

Personal Matters / Ex. 6

Is it possible either of you would be available to speak on EPA's behalf at this event. It is at the Westin in downtown Detroit. My talk is basically at 1pm.

I will find out in the next day or 2 if I can cover this.

Also – on Friday of this week I'm going to scope out the presentation, and I will probably ask for some help. I wanted to go deeper on the technical work EPA has done, and less on the background/program highlights which I did at the Fuel Economy Detroit presentation.

Thanks

Bill

http://www.sae.org/servlets/techSession?EVT_NAME=HEE&GROUP_CD=TT&SCHED_NUM=248897&REQUEST_TYPE=SES_SION_LIST

SAE 2017 High Efficiency IC Engine Symposium

Sunday, April 2

Opening and Keynotes

(Session Code: HEE1)

Room Woodward Ballroom 1:00 p.m.

Time	Paper No.	Title
1:00 p.m.	ORAL ONLY	Symposium Introduction Bengt Johansson, King Abdullah Univ. of Science & Tech.
1:15 p.m.	ORAL ONLY	EPA Update on Light-duty Vehicle GHG Emissions and Technologies William Charmley, US Environmental Protection Agency

Keynote Address

A Pragmatic Approach to Reducing the CO2 Footprint of the Internal Combustion Engine As industry at large works to reduce the CO2 footprint of the internal combustion engine, it is paramount to synergistically develop cost-effective engine technologies and the fuels necessary to support them. From a pragmatic perspective, minimizing engine generated CO2 means synergistically minimizing all loss mechanisms. In the short-term, to minimize parasitic losses, we need to continue the industry-wide trend to downsize boosted engines without sacrificing compression ratio. In the long-term, to minimize heat losses and

1:55 p.m. ORAL ONLY

maximize work extraction without sacrificing our ability to meet future criteria emissions legislation, we must pursue advanced lean, low temperature combustion. As such, to minimize engine-generated CO2 at a vehicle level, we must aggressively and synergistically implement and integrate high compression ratio downsize boosted engine technology and advanced lean, low temperature combustion processes. For the near and long term engine efficiency approaches to seamlessly evolve, it will be necessary for gasoline-based fuels to evolve. In addition, costeffective and efficient exhaust aftertreatment, boost, and fuel-injection systems will be needed to support the above evolution of engine technologies. Finally, electrified solutions will need to be developed and highly integrated into the engines and propulsion systems to act as enablers for energy recovery and storage mechanisms to enabler the future technologies that support the further optimization of the combustion engine.

David Brooks, General Motors LLC

2:35 p.m.

ORAL ONLY

Fuels & Engines

Thomas Mccarthy, Ford Motor Company

From: Charmley, William

Sent: Wednesday, March 22, 2017 12:34 PM **To:** 'Colette Wright' <<u>Colette.Wright@sae.org</u>> **Subject:** RE: SAE High Efficiency Program

Colette -

Please use the following for this talk:

"EPA Update on Light-duty Vehicle GHG Emissions and Technologies"

Mr. Charmley will provide a review of research already completed as well as on-going work at EPA's National Vehicle and Fuel Emissions laboratory in order to inform EPA's decision making regarding greenhouse gas emission standards for light-duty vehicles.

Thanks Bill

From: Colette Wright [mailto:Colette.Wright@sae.org]

Sent: Wednesday, March 22, 2017 11:13 AM

To: Charmley, William <charmley.william@epa.gov>

Subject: SAE High Efficiency Program

Hi Bill -

We are holding a place in the final program for the title and short abstract of your keynote address, on Sunday April 2, at the Westin book Cadillac. Will you please send us this content by the end of the week?

Sincerely, Colette

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